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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/066,990	02/04/2002	James J. Kobe	57148US002	4190		
32692	7590 07/30/2	203				
	3M INNOVATIVE PROPERTIES COMPANY			EXAMINER		
PO BOX 334 ST. PAUL, I	427 MN 55133-3427		VO, HAI			
			ART UNIT	PAPER NUMBER		
			1771			
		DATE MAILED: 07/30/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

•		Applic	ation No.	Applicant(s)				
		10/066	6,990	KOBE ET AL.				
	Office Action Summary	Exami	ner	Art Unit				
		Hai Vo	0	1771				
	The MAILING DATE of this commu	nication appears on	the cover sheet	with the correspondence a	ddress			
Period fo			T TO EVOIDE .	MONTU/O) EDOM				
THE I - Exte after - If the - If NC - Failu - Any	ORTENED STATUTORY PERIOD F MAILING DATE OF THIS COMMUN nsions of time may be available under the provision SIX (6) MONTHS from the mailing date of this com period for reply specified above is less than thirty ( period for reply is specified above, the maximum s re to reply within the set or extended period for repl reply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b).	IICATION. s of 37 CFR 1.136(a). In nominication. 30) days, a reply within the statutory period will apply are y will, by statute, cause the	o event, however, may statutory minimum of the and will expire SIX (6) Missing application to become	a reply be timely filed  hirty (30) days will be considered time  ONTHS from the mailing date of this of  ABANDONED (35 U.S.C. § 133)	ily. communication.			
1)	Responsive to communication(s) f	iled on <i>19 May 200</i>	03 .					
2a)⊠	This action is <b>FINAL</b> .	2b) ☐ This action						
3)	Since this application is in condition	•		natters, prosecution as to t	he merits is			
,	closed in accordance with the pract	ctice under Ex parte	e <i>Quayl</i> e, 1935 (	D.D. 11, 453 O.G. 213.				
•	ion of Claims	Parking.						
	Claim(s) <u>1-26</u> is/are pending in the		consideration					
	4a) Of the above claim(s) <u>16-22</u> is/are withdrawn from consideration.							
·	Claim(s) is/are allowed.							
·	Claim(s) <u>1-3,5-15 and 23-26</u> is/are rejected.							
,	Claim(s) <u>4</u> is/are objected to.  Claim(s) are subject to restriction and/or election requirement.							
-	ion Papers	iction and/or election	on requirement.					
• •	The specification is objected to by the	ne Examiner.						
, —	The drawing(s) filed on is/are		o) objected to by	y the Examiner.				
,—	Applicant may not request that any ol							
11)[	The proposed drawing correction file	ed on is: a)[	☐ approved b)☐	disapproved by the Exami	ner.			
	If approved, corrected drawings are re	equired in reply to thi	s Office action.					
12) The oath or declaration is objected to by the Examiner.								
Priority	under 35 U.S.C. §§ 119 and 120							
13)	Acknowledgment is made of a clair	n for foreign priority	y under 35 U.S.C	C. § 119(a)-(d) or (f).				
a)	☐ All b)☐ Some * c)☐ None of:							
	1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No							
* ;	<ol> <li>Copies of the certified copies application from the Inter See the attached detailed Office acti</li> </ol>	national Bureau (P	CT Rule 17.2(a)	).	l Stage			
14) 🔲 /	Acknowledgment is made of a claim	for domestic priorit	ty under 35 U.S.	C. § 119(e) (to a provisiona	al application).			
	a) $\square$ The translation of the foreign lath $\square$ Acknowledgment is made of a claim							
Attachmer			_					
2) Noti	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review mation Disclosure Statement(s) (PTO-1449)		· · · · · · · · · · · · · · · · · · ·	ew Summary (PTO-413) Paper N of Informal Patent Application (P				
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#### Election/Restrictions

Applicant's election of Group I, claims 1-15 in Paper No. 4 is acknowledged.
 Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

#### Claim Objections

2. Claims 2, 6, 24 and 25 objected to because of the following informalities: In claims 2, 24 and 25, the phrase (>15 lbs/inch) should be deleted since it is exactly equivalent to 2.64 kN/m recited in the claim. The same token is applied to claim 6, the phrase (0.025 inches) should be removed from the claim. Appropriate correction is required.

### Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-3, 5-12, 15, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663) substantially as set forth in Paper no. 3. With regard to claim 1, Gehlsen teaches a foam article comprising a plurality of expanded polymeric microspheres and the amount of microspheres in parts by weight per 100 parts of adhesive composition (EMS-pph) meeting a specific range required by the claims (table 1, column 8, lines 40-44).

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With regard to claim 9 and newly added claim 25, it appears that Parsons and Applicant are using the same material for an antimony-free intumescent fire retardant which is available under the trade name EXOLIT IFR-23 (Parsons, column 2, lines 60-65 vs. Applicants' specification, page 11, line18-19). Applicants state that intumescent fire retardants generally comprise an acid source, a char former and a blowing agent (Applicants specification, page 4, lines 17-19). It is not seen that the intumescent fire retardant of Parsons would have a composition different from Applicants' intumescent fire retardant.

With regard to newly added claim 26, Gehlsen teaches the foam material having a density of 960 kg/m3 (column 21, line 14).

- 5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663) as applied to claim 1 above, further in view of Bonk et al (US 4,751,269) substantially as set forth in Paper no. 3.
- 6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663) and Bonk et al (US 4,751,269), as applied to claim 13 above, further in view of Perez et al (US 6,110,588) substantially as set forth in Paper no. 3.
- 7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehlsen et al (US 6,103,152) in view of Parsons et al (US 5,851,663) as evidenced by Mochizuki et al (US 6,139,998). Gehlsen teaches an adhesive tape having every element set out in the claims except an antimony-free fire retardant (examples 1-5).

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Parsons teaches an adhesive tape comprising a foam layer that includes an antimony-free flameproofing agent such as ammonium polyphosphate and a backing layer bonded to the foam layer (column 3, lines 1-12, and 58-60). Parsons also teaches the composition comprising a combination of non-halogen intumescent flame retardant (NHIFR) with a brominated additive to provide a synergistic effect in flammability performance of the composition (column 2, lines 35-40, and 50-54). It is well-known in the art that tris(bromoneopentyl) phosphate is a bromonated fire retardant (US 6,139,998, column 8, line 58 et seq.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in the adhesive tape motivated by the desire to achieve a flameproofing effect and environmental safety.

### Allowable Subject Matter

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art discloses or suggests a flame retardant article comprising a foam layer comprising a polymer, antimony-free fire retardant and a plurality of expanded polymeric microspheres and an adhesive layer bonded to the foam layer wherein the adhesive layer is formulated without fire retardant agent.

## Response to Arguments

 Applicants' amendments received on 05/20/2003 have been entered and fully considered. Application/Control Number: 10/066,990 Page 5

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10. The 112 claim rejections have been overcome by the present arguments (the last full paragraph at page 8 of Paper no. 4).

11. The art rejections in Paper no. 3 have been maintained for the following reasons. The arguments that Parson does not make up for the deficiencies of the Gehlsen reference are not found persuasive for patentability. It appears that Gehlsen and Parsons references are related to pressure sensitive adhesives and tapes. Gehlsen teaches an adhesive tape having every element set out in the claims except an antimony-free fire retardant (examples 1-5). Gehlsen does teach the adhesive tape comprising a fire retardant (column 8, line 51). Gehlsen does not specifically disclose the antimony-free fire retardant. Parsons supplies the missing feature. Parsons teaches an adhesive tape comprising a foam layer that includes an antimony-free flameproofing agent such as ammonium polyphosphate and a backing layer bonded to the foam layer (column 3, lines 1-12, and 58-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an antimony-free fire retardant in the adhesive tape motivated by the desire to achieve a flameproofing effect and environmental safety, which is important to the invention of Gehlsen and thus further suggesting the modification.

Applicants argue that Parsons does not disclose a flame retardant article comprising an expanded polymeric foam material comprising a polymer, antimony-free fire retardant, one or more synergists and about 0.1 parts by weight to 20 parts by weight of expanded polymeric microspheres as described in Applicants' amended claim 1. They are not found persuasive. Parsons does not need to disclose a flame

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retardant article comprising a polymer and about 0.1 parts by weight to 20 parts by weight of expanded polymeric microspheres since they have been disclosed in the Gehlsen reference.

#### Conclusion

12.**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426.

The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned

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are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV July 22, 2003

> ELIZASE MM. CONT. PRIMARO EXAMINACIO